

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

In the present Application, Claims 17-27 are active. Claims 1-3 and 9 have been cancelled by previous amendments. The present Amendment cancels Claims 4-8 and 10-16 without prejudice or disclaimer, and adds new Claims 17-27 without introducing any new matter.

In the outstanding Office Action, Claims 4-8 and 10-16 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for a formal issue. Claims 4-8 and 10-16 were rejected under 35 U.S.C. § 102(a) as anticipated by Karjalainen (U.S. Patent Application Publication No. 2002/0176438).

In response to the rejection of Claims 4-8 and 10-16 under 35 U.S.C. § 112, second paragraph, and to better comply with U.S. claim drafting practice, Claims 4-8 and 10-16 are cancelled without prejudice or disclaimer, and new Claims 17-27 are presented. New Claims 17-20 are directed to a radio control device, new Claims 21-24 are also directed to a radio control device, but written in means-plus-function language, and new Claims 25-27 are directed to a method. New Claims 17-27 find non limiting support in Applicants' disclosure as originally filed. For example, the steps (a), (b), and (c) that are performed by the control unit find non-limiting support in Applicants' specification from page 11, line 25 to page 12, line 2, and in steps S02, S04, and S07, shown in Figure 2, and in the specification on pages 13-16. No new matter has been added.

In response to the rejection of Claims 4-8 and 10-16 under 35 U.S.C. § 102(a), in light of the presentation of new claims, Applicants respectfully request reconsideration of this rejection and traverses the rejection, as discussed next.

By way of background, Applicants describe on pages 3-4 of the specification a conventional method for selecting a channelization code, as shown in Applicants' Figure 3. Conventionally, a radio resource selection unit for frequency band $f1$ tries to select a channelization code belonging to the *primary* scrambling code of $f1$. If that selection fails, the same radio resource selection unit for frequency band $f1$ tries to select a channelization code belonging to the *secondary* scrambling code of $f1$. If that selection fails, a radio resource selection unit for frequency band $f2$ tries to select a channelization code belonging to the *primary* scrambling code of $f2$ and tries to select a channelization code belonging to the *secondary* scrambling code of $f2$. Thus, since the selection trial of a channelization code belonging to the secondary scrambling code of frequency band $f1$ is carried out before the selection trial of a channelization code belonging to the primary scrambling code of frequency band $f2$, channelization codes belonging to the secondary scrambling code are selected *more frequently in the cell of frequency band $f1$* using the conventional selection method.

Turning to the applied reference, Karjalainen is directed to selecting spreading codes used in a CDMA mobile telephone system such that the capacity for separating user signals remains as high as possible, particularly when clipping a combination signal so as to eliminate power peaks. (Karjalainen, Abstract.) More specifically, Karjalainen describes selecting a spreading code by starting at the highest level in a single code tree to find unassigned spreading codes. (Karjalainen, Figs. 1 and 2, ¶ [0021].) According to Karjalainen, spreading codes are allocated to terminal equipment from the single code tree having hierarchical levels. (Id.) Code tree spreading codes according to a certain spreading factor are located on the same level, the levels being arranged with the level of the lowest spreading factor being located highest in the tree and the rest of the levels being located below the highest level in an order according to the spreading factor. (Id.)

According to Karjalainen, the process of searching for a level of the code tree starts traversing the code tree level by level, beginning at the highest level. That is, if a high-rate user enters the system and no spreading code is automatically found for the user on a desired level, the system reallocates spreading codes to the users such that spreading codes subordinate to the spreading code to be allocated to the high-rate user become free.

However, Karjalainen fails to teach all the features of Applicants' independent Claim 17. In particular, Karjalainen fails to teach the following features:

- a control unit configured to control the first and second channelization code selection units, the control unit configured to
 - (a) instruct the first channelization code selection unit to use a primary scrambling code belonging to the first frequency to look for an unused channelization code,
 - (b) instruct the second channelization code selection unit to use the primary scrambling code belonging to the second frequency to look for an unused channelization code, in a case the first channelization code selection unit has determined that there is no unused channelization code for the primary scrambling code for the first frequency, and
 - (c) instruct the first channelization code selection unit to use a secondary scrambling code belonging to the first frequency to look for an unused channelization code, in a case the second channelization code selection unit has determined that there is no unused channelization code for the primary scrambling code for the second frequency.

(Claim 17, portions omitted.) Karjalainen fails to instruct first and second channelization code selection units to look for codes as recited in Applicants' independent Claim 17. As explained in Karjalainen's paragraph [0012], when allocating a new spreading code, a code tree is searched for a level which includes at least one branch whose spreading codes are allocatable. (Karjalainen, ¶ [0012]) Thereafter, when selecting a new spreading code, such a branch is selected, and a spreading code from the particular branch is allocated for use. (Id.) Accordingly, Karjalainen's method uses a method to rapidly find a unallocated spreading code within a code tree. Karjalainen makes no determination whether a particular scrambling code for a particular frequency has not produced any unused channelization codes, as required by Applicants' independent Claim 17.

Therefore, the applied reference Karjalainen fails to teach every feature recited in Applicants' Claim 17, so that Claims 17-20 are believed to be patentably distinct over Karjalainen. Accordingly, Applicants respectfully traverse, and request reconsideration of the rejection based on this reference.

Independent Claims 21 and 25 recite features that are analogous to the features recited in independent Claim 17, but directed to different statutory classes. Accordingly, for the reasons stated above for the patentability of Claim 17, Applicants respectfully submit that the rejections of Claims 21 and 25, and the rejections of all associated dependent claims, are also believed to be overcome in view of the arguments regarding independent Claim 17.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 17-27 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

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